

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A power-gating technique for an integrated circuit device having a Sleep Mode of operation comprising:
providing an output stage directly coupled between a substantially constant supply voltage source and a substantially constant reference voltage source; and
driving a gate terminal of at least one element of said output stage to a level above that of said supply voltage source or below that of said reference voltage source in said Sleep Mode of operation.
2. (original) The power-gating technique of claim 1 wherein said output stage comprises series coupled P-channel and N-channel transistors coupled between said supply voltage source and said reference voltage source.
3. (original) The technique of claim 2 wherein said gate terminal of said N-channel transistor is driven below said reference voltage level while in said Sleep Mode of operation.
4. (original) The technique of claim 2 wherein said gate terminal of said P-channel transistor is driven above said supply voltage level while in said Sleep Mode of operation.
5. (currently amended) A circuit comprising:
an output stage comprising first and second series coupled transistors

directly coupled between a substantially constant supply voltage source and a substantially constant reference voltage source, said output stage comprising an input terminal and an output terminal thereof;

a power-gating circuit coupled to a stage preceding said output stage for applying a voltage level to a gate terminal of said first transistor greater than that of said supply voltage source in response to a Sleep Mode of operation.

6. (original) The circuit of claim 5 wherein said output stage comprises a CMOS inverter and said first transistor comprises a P-channel transistor.

7. (original) The circuit of claim 5 wherein said voltage level applied to said gate terminal of said first transistor comprises substantially said supply voltage source level plus 0.3V.

8. (currently amended) A circuit comprising:

an output stage comprising first and second series coupled transistors directly coupled between a substantially constant supply voltage source and a substantially constant reference voltage source, said output stage comprising an input terminal and an output terminal thereof;

a power-gating circuit coupled to a stage preceding said output stage for applying a voltage level to a gate terminal of said second transistor lesser than that of said reference voltage source in response to a Sleep Mode of operation.

9. (original) The circuit of claim 8 wherein said output stage comprises a CMOS inverter and said second transistor comprises a N-channel transistor.

10. (original) The circuit of claim 8 wherein said voltage level applied to said gate terminal of said second transistor comprises substantially said reference voltage source level minus 0.3V.

11. (currently amended) An integrated circuit device including a power-gated write data driver circuit for a memory array, said driver circuit comprising:

at least a first stage coupled between a substantially constant supply voltage source and a power-gated reference voltage line;

an output stage directly coupled between said supply voltage source and a substantially constant reference voltage source, an input to said output stage being coupled to an output of said at least said first stage; and

a power-gating circuit coupled to a stage preceding said output stage for driving said input to a level lower than that of said reference voltage source level in response to a Sleep Mode of operation.

12. (original) The integrated circuit device of claim 11 wherein said output stage comprises a CMOS inverter comprising at least one series coupled P-channel transistor and at least one N-channel transistor.

13. (original) The integrated circuit device of claim 12 wherein a gate terminal of said at least one N-channel transistor is driven to establish a negative V_{GS} in response to said Sleep Mode of operation.

14. (currently amended) An integrated circuit device including a power-gated write data driver circuit for a memory array, said driver circuit comprising:

at least a first stage coupled between a substantially constant reference voltage source and a power-gated supply voltage line;

an output stage directly coupled between a substantially constant supply voltage source and said reference voltage source, an input to said output stage being coupled to an output of said at least said first stage; and

a power-gating circuit coupled to said input of said output stage for driving said input to a level higher than that of said supply voltage source level in response to a Sleep Mode of operation.

15. (original) The integrated circuit device of claim 14 wherein said output stage comprises a CMOS inverter comprising at least one series coupled P-channel transistor and at least one N-channel transistor.

16. (cancelled)

17. (currently amended) A power-gating technique for an integrated circuit device having a Sleep Mode of operation comprising:

providing an output stage directly coupled between a substantially constant supply voltage source and a substantially constant reference voltage source; and

driving a common gate terminal of said output stage to a level above that of said supply voltage source in said Sleep Mode of operation.

18. (previously presented) The power-gating technique of claim 17 wherein said output stage comprises series coupled P-channel and N-channel transistors coupled between said supply voltage source and said reference voltage source, and to the common gate terminal.

19. (currently amended) A power-gating technique for an integrated circuit device having a Sleep Mode of operation comprising:

providing an output stage directly coupled between a substantially constant supply voltage source and a substantially constant reference voltage source; and

driving a common gate terminal of said output stage to a level below that of said reference voltage source in said Sleep Mode of operation.

20. (previously presented) The power-gating technique of claim 19 wherein said output stage comprises series coupled P-channel and N-channel transistors coupled between said supply voltage source and said reference voltage source, and to the common gate terminal.
21. (new) The technique of claim 1 wherein the output stage comprises two transistors directly coupled to an output terminal of the output stage.
22. (new) The circuit of claim 5 wherein the output stage comprises two transistors directly coupled to the output terminal of the output stage.
23. (new) The circuit of claim 8 wherein the two transistors in the output stage are directly coupled to the output terminal of the output stage.
24. (new) The circuit of claim 11 wherein the output stage comprises two transistors directly coupled to an output terminal of the output stage.
25. (new) The circuit of claim 14 wherein the output stage comprises two transistors directly coupled to an output terminal of the output stage.
26. (new) The technique of claim 17 wherein the output stage comprises two transistors directly coupled to an output terminal of the output stage.
27. (new) The technique of claim 19 wherein the output stage comprises two transistors directly coupled to an output terminal of the output stage.